

City of Salem Contributory Retirement System

Actuarial Valuation and Review as of
January 1, 2014





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February 20, 2015

Retirement Board

City of Salem Contributory Retirement System

20 Central Street, Suite 110

Salem, MA 01970

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of January 1, 2014. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2015 and later years and analyzes the preceding two years' experience.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement System. The census information and financial information on which our calculations were based was prepared by the staff of the Salem Retirement System. That assistance is gratefully acknowledged.


The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

The actuarial calculations were directed under my supervision. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in my opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By: 
Kathleen A. Riley, FSA, MAAA, EA
Senior Vice President and Actuary

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SECTION 1: Valuation Summary for the City of Salem Contributory Retirement System

Purpose

This report has been prepared by Segal Consulting to present a valuation of the City of Salem Contributory Retirement System as of January 1, 2014. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of Massachusetts General Law Chapter 32;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of January 1, 2014;
- The assets of the Plan as of December 31, 2013;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

1. The actuarial valuation report as of January 1, 2014 is based on financial information as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected.
2. The actuarial value of assets as of December 31, 2013 was \$120.4 million, or 97.2% of the market value of assets of \$123.9 million (as reported in the Annual Statement). As of December 31, 2011, the actuarial value of assets was 112.9% of market value. During the plan years ended December 31, 2012 and December 31, 2013, the market value rates of return were 12.03% and 13.88%, respectively. Because the actuarial value of assets gradually recognizes market value fluctuations, the actuarial rates of return for the plan years ended December 31, 2012 and December 31, 2013 were 0.89% and 8.99%, respectively.
3. The total unrecognized investment gain as of December 31, 2013 was \$3,438,443. This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent it is not offset by recognition of investment losses derived from future experience. This implies that earning the assumed rate of investment return (net of expenses) on a market value basis will result in investment gains on the actuarial value of assets in the next few years. The unrecognized investment gains are not reflected in the funding schedule shown in Section 2 of this report.

SECTION 1: Valuation Summary for the City of Salem Contributory Retirement System

4. The following actuarial assumptions and methods were changed with this valuation:
 - The actuarial cost method was changed to better reflect the impact of the plan changes effective for employees hired on or after April 2, 2012.
 - The investment return assumption was lowered from 8.0% to 7.75%.
 - The pre-retirement mortality assumption was changed from the RP-2000 Employee Mortality Table projected 12 years with Scale AA to the RP-2000 Employee Mortality Table projected generationally using Scale AA from 2010.
 - The mortality assumption for non-disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table projected 12 years with Scale AA to the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale AA from 2010.
 - The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward two years projected 12 years with Scale AA to the RP-2000 Healthy Annuitant Mortality Table set forward three years for males only projected generationally using Scale AA from 2010.
 - The assumed retirement age for inactive vested participants was changed from age 65 to age 55 for Group 1 and 2 members hired prior to April 2, 2012. For participants hired April 2, 2012 or later, the assumption is age 60 for Group 1 members, age 55 for Group 2 members, and age 50 for Group 4 members.
 - The salary increase assumption was changed from a level 5% to rates based on years of service with ultimate rates of 4.25% per year for Group 1 members, 4.50% per year for Group 2 members and 4.75% per year for Group 4 members, including an allowance for inflation of 4.0% per year.

Changing these assumptions and methods resulted in a net increase in the unfunded actuarial accrued liability of \$7,794,159 and a net increase in the normal cost of \$37,644.

5. Members hired on or after April 2, 2012 are covered by the provisions of Chapter 32 as amended by Chapter 176 of the Acts of 2011 and Chapter 139 of the Acts of 2012.
6. The unfunded liability has increased from \$107.5 million as of January 1, 2012 to \$117.1 million as of January 1, 2014. The unfunded liability was expected to decrease to \$107.1 million. The increase of \$10.0 million from the expected unfunded liability is primarily due to the assumption changes described above and an investment loss on an actuarial basis partially offset by salaries increasing less than expected, more deaths than expected and data changes and other miscellaneous experience.

SECTION 1: Valuation Summary for the City of Salem Contributory Retirement System

7. Because the fiscal 2015 appropriation has already been budgeted at \$11,948,259, the results of this valuation will first be reflected in the fiscal 2016 appropriation which was set at \$12,000,000. The funding schedule in Chart 16 fully funds the System by June 30, 2031. The amortization payments on the 2002 ERI, the 2003 ERI and the remaining unfunded liability increase 4.50% per year. The amortization payment on the 2010 ERI is a level payment. The fiscal 2017 appropriation is \$12,527,730 or 4.40% higher than the 2016 appropriation. The previously budgeted amount for fiscal 2015 includes an adjustment for timing. Fiscal years 2016 and 2017 assume payment on July 1. See Exhibit G in Section 3 for department results that include an adjustment for timing.

The funding schedule shown in Chart 16 reflects an estimated employer normal cost of \$35,262 and unfunded actuarial accrued liability of \$2,156,171 as of July 1, 2014 due to the merger of the Essex Agricultural & Technical School with the North Shore Regional Vocational Technical School. These estimates are based on participant information for Essex Agricultural & Technical School, including Annuity Savings Fund balances of \$1,329,327, provided by the staff of the City of Salem Contributory Retirement System.

The prior funding schedule fully funded the System by June 30, 2032 with appropriations that increase 4.50% per year.

8. On a market value basis, the funded ratio has increased from 44.15% as of January 1, 2012 to 52.15% as of January 1, 2014. On an actuarial basis, the funded ratio has increased from 49.83% as of January 1, 2012 to 50.71% as of January 1, 2014.
9. Section 4 includes the disclosure information required by Governmental Accounting Standards Board (GASB) Statements No. 25 and 27. Section 5 shows the format of the disclosure information required by GASB Statements No. 67 and 68. The exhibits in Section 5 will be completed at the end of the year when December 31, 2014 financial information is available. At that time, the liabilities will be projected to the end of the year and the allocations to each employer will be determined.

SECTION 1: Valuation Summary for the City of Salem Contributory Retirement System

Summary of Key Valuation Results

	2014	2012
Contributions for fiscal year beginning July 1:*		
Recommended for fiscal 2015 and 2013	\$11,948,259	\$10,941,379
Recommended for fiscal 2016 and 2014	12,000,000	11,433,741
Recommended for fiscal 2017 and 2015	12,527,730	11,948,259
Funding elements for plan year beginning January 1:		
Normal cost, including administrative expenses	\$6,019,287	\$5,830,416
Market value of assets	123,879,403	94,634,402
Actuarial value of assets	120,440,960	106,806,162
Actuarial accrued liability	237,524,910	214,346,363
Unfunded actuarial accrued liability	117,083,950	107,540,201
Funded ratio based on market value of assets	52.15%	44.15%
Funded ratio based on actuarial value of assets	50.71%	49.83%
Demographic data for plan year beginning January 1:		
Number of retired participants and beneficiaries	571	581
Number of inactive participants entitled to a return of their employee contributions	207	188
Number of inactive participants with a vested right to a deferred or immediate benefit	26	23
Number of active participants	827	804
Total payroll	\$38,667,679	\$35,402,225
Average payroll	46,757	44,033

* With the exception of fiscal 2016 and fiscal 2017, recommended contributions include adjustment for timing. Fiscal 2016 and fiscal 2017 assume contribution is made at the beginning of the fiscal year. See Exhibit G in Section 3 for contribution amounts reflecting interest adjustments due to timing.

SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

A. PARTICIPANT DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, inactive participants, retired participants and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A and B.

A historical perspective of how the participant population has changed over the past eight valuations can be seen in this chart.

CHART 1

Participant Population: 2002 – 2013

Year Ended December 31	Active Participants	Inactive Participants	Retired Participants and Beneficiaries
2002	876	117	586
2003	839	129	607
2004	840	146	618
2005	831	170	614
2007	825	192	596
2009	827	183	594
2011	804	211	581
2013	827	233	571

SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 827 active participants with an average age of 49.2, average years of service of 12.6 years and average payroll of \$46,757. The 804 active participants in the prior valuation had an average age of 48.9, average service of 12.3 years and average payroll of \$44,033

Among the active participants, there were none with unknown age and/or service information.

Inactive Participants

In this year's valuation, there were 26 participants with a vested right to a deferred or immediate vested benefit and 207 participants entitled to a return of their employee contributions.

These graphs show a distribution of active participants by age and by years of service.

CHART 2

Distribution of Active Participants by Age as of December 31, 2013

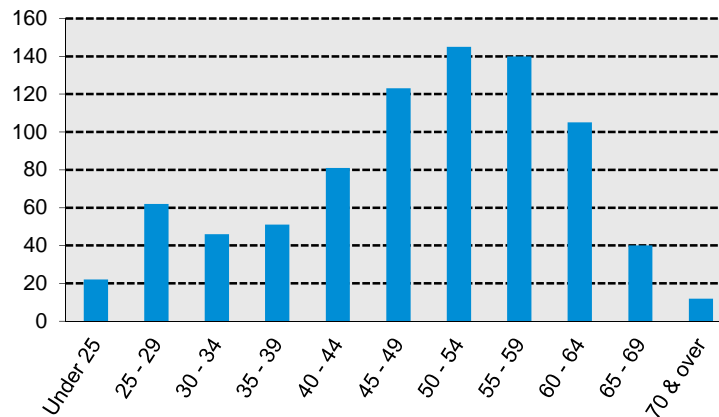
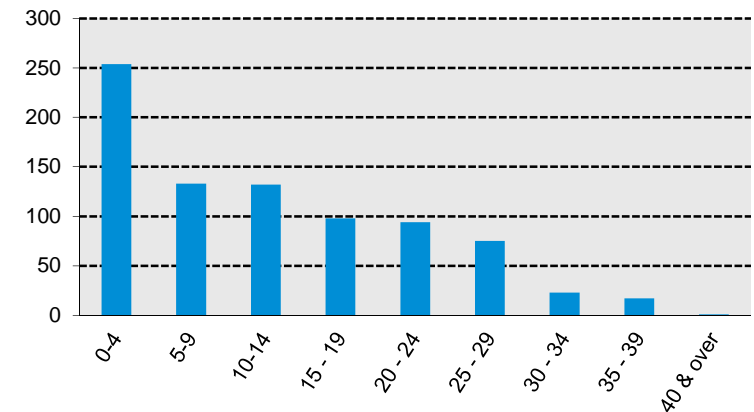


CHART 3

Distribution of Active Participants by Years of Service as of December 31, 2013



SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

Retired Participants and Beneficiaries

As of December 31, 2013, 488 retired participants and 83 beneficiaries were receiving total monthly benefits of \$1,076,852, excluding COLAs reimbursed by the Commonwealth. For comparison, in the previous valuation, there were 498 retired participants and 83 beneficiaries receiving monthly benefits of \$1,033,940, excluding COLAs reimbursed by the Commonwealth.

These graphs show a distribution of the current retired participants and beneficiaries based on their monthly amount and age, by type of pension.

■ Beneficiaries
■ Accidental Disability
■ Ordinary Disability
■ Superannuation

CHART 4

Distribution of Retired Participants and Beneficiaries by Type and by Monthly Amount as of December 31, 2013

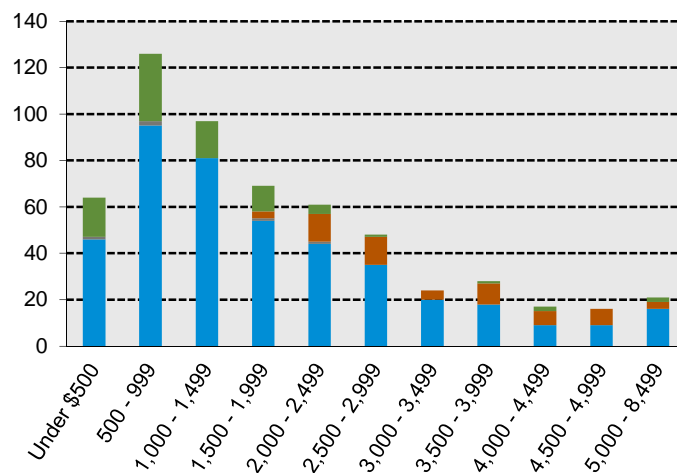
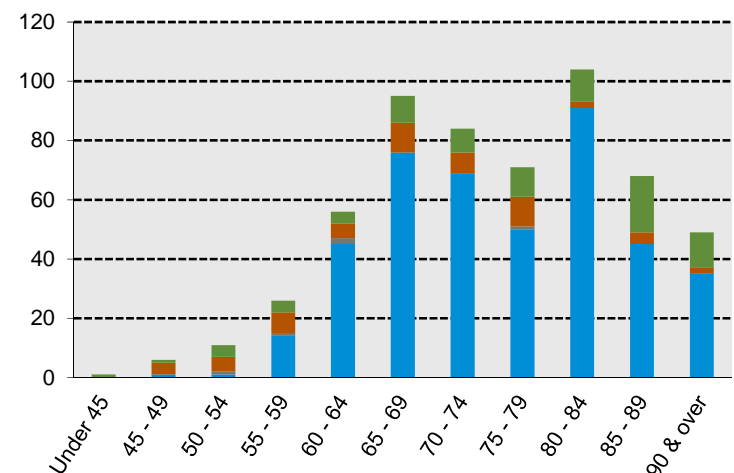


CHART 5

Distribution of Retired Participants and Beneficiaries by Type and by Age as of December 31, 2013



SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

B. FINANCIAL INFORMATION

Retirement plan funding anticipates that, over the long term, both contributions (less administrative expenses) and net investment earnings (less investment fees) will be needed to cover benefit payments.

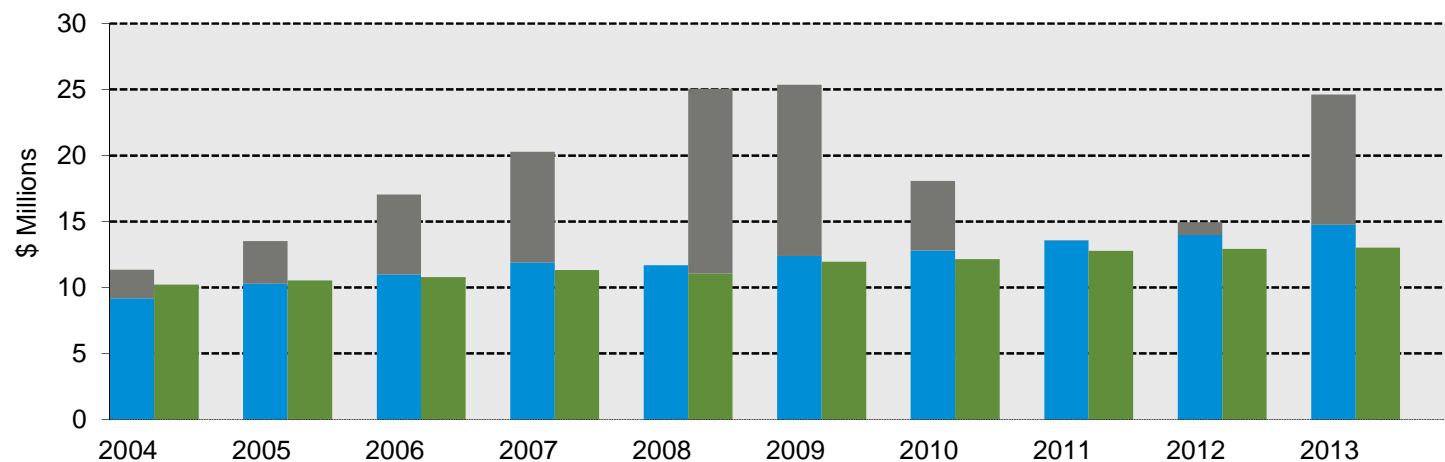
Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits C and D.

The chart depicts the components of changes in the actuarial value of assets over the last ten years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.

- Net interest and dividends
- Benefits paid
- Net contributions

CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended December 31, 2004 – 2013



SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 7 Determination of Actuarial Value of Assets

	Year Ended	
	December 31, 2013	December 31, 2012
1. Market value of assets	\$123,879,403	\$107,147,927
2. Calculation of unrecognized return*	Original <u>Amount</u>	Unrecognized <u>Amount</u>
(a) Year ended December 31, 2013	\$6,211,644	N/A
(b) Year ended December 31, 2012	2,859,746	\$2,287,797
(c) Year ended December 31, 2011	-9,010,714	-5,406,429
(d) Year ended December 31, 2010	1,787,830	715,132
(e) Year ended December 31, 2009	3,596,896	<u>N/A</u>
(f) Total unrecognized return	3,438,443	<u>719,379</u>
3. Preliminary actuarial value: (1) - (2f)	120,440,960	-1,684,121
4. Adjustment to be within 20% corridor	0	108,832,047
5. Final actuarial value of assets: (3) + (4)	<u>\$120,440,960</u>	<u>\$108,832,047</u>
6. Actuarial value as a percentage of market value: (5) ÷ (1)	97.2%	101.6%
7. Amortization deferred for future recognition: (1) – (5)	\$3,438,443	0

* Unrecognized return is the difference between the actual market return and the expected return on an actuarial value basis and is recognized over a five-year period.

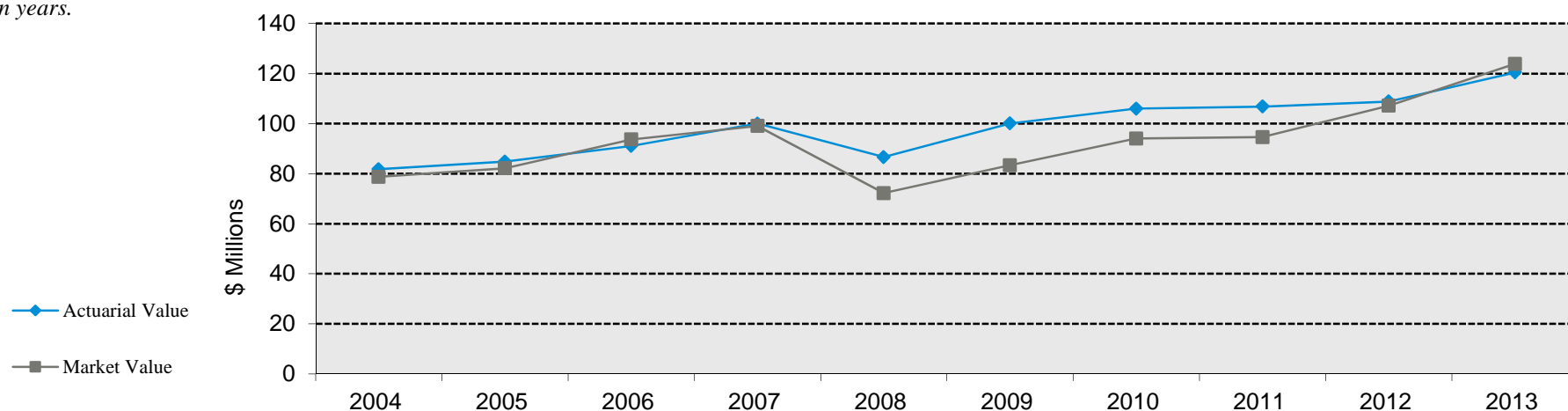
SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

Both the actuarial value and market value of assets are representations of the Salem Contributory Retirement System's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the Salem Contributory Retirement System's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows the change in the actuarial value of assets versus the market value over the past ten years.

CHART 8

Actuarial Value of Assets vs. Market Value of Assets as of December 31, 2004 – 2013



SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term

development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total loss for the two-year period ending December 31, 2013 is \$2,160,683. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience over the past two years.

CHART 9

Actuarial Experience for Two-Year Period Ended December 31, 2013

1. Net loss from investments*	-\$7,149,042
2. Net gain from administrative expenses	71,173
3. Net gain from other experience**	<u>4,917,186</u>
4. Net experience loss: (1) + (2) + (3)	-\$2,160,683

* Details in Chart 10

** Details in Chart 13

SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Salem Contributory Retirement System's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets was 8.00%. The actual rate of return on an actuarial basis for the 2013 plan year was 8.99% and 0.89% for the 2012 year.

Since the actual return for the two-year period was less than the assumed return, the Salem Contributory Retirement System experienced an actuarial loss of \$7,149,042 (including an adjustment for interest) during the two-year period ending December 31, 2013 with regard to its investments.

This chart shows the gain/(loss) due to investment experience.

CHART 10 Actuarial Value Investment Experience

	Year Ended	
	December 31, 2013	December 31, 2012
1. Actual return	\$9,865,385	\$959,266
2. Average value of assets	109,703,811	107,339,471
3. Actual rate of return: (1) ÷ (2)	8.99%	0.89%
4. Assumed rate of return	8.00%	8.00%
5. Expected return: (2) x (4)	\$8,776,304	\$8,587,158
6. Actuarial gain/(loss): (1) – (5)	<u>\$1,089,081</u>	<u>-\$7,627,892</u>

SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last ten years, including five-year and ten-year averages.

Based upon this experience and future expectations, we have lowered the assumed rate of return from 8.00% to 7.75%.

CHART 11

Investment Return – Actuarial Value vs. Market Value: 2004 - 2013

Year Ended December 31	Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent
2004	\$2,177,899	2.72%	\$6,590,555	9.07%
2005	3,233,422	3.96	3,694,639	4.70
2006	6,050,918	7.13	11,296,361	13.73
2007	8,383,232	9.18	4,823,380	5.13
2008	-13,989,510	-13.95	-29,097,490	-28.81
2009	12,996,591	14.97	10,761,442	14.86
2010	5,296,489	5.28	10,067,766	12.03
2011	33,719	0.03	-234,863	-0.25
2012	959,265	0.89	11,446,904	12.03
2013	<u>9,865,386</u>	8.99	<u>14,987,949</u>	13.88
Total	\$35,007,411		\$44,336,643	
	Five-year average return	5.71%		10.36%
	Ten-year average return	3.69%		5.03%

Note: Each year's yield is weighted by the average asset value in that year.

SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

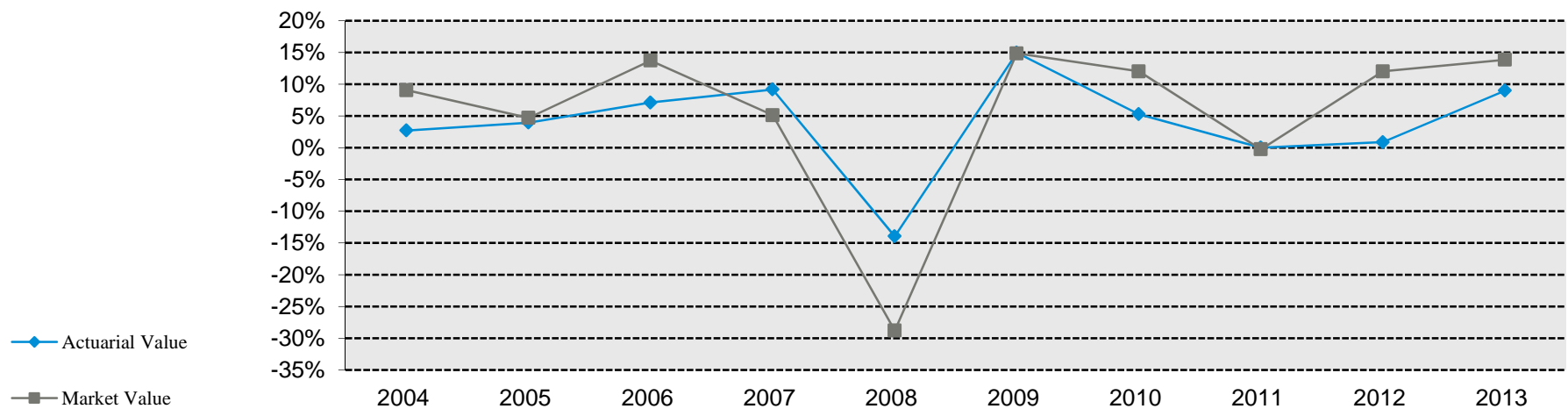
Administrative Expenses

Administrative expenses for the years ended December 31, 2012 and 2013 were \$421,160 and \$226,939, respectively, compared to the assumption of \$350,000 and \$364,000, respectively. This resulted in a gain of \$71,173 for the two-year period. We have reset the administrative expense assumption to \$350,000 for calendar year 2014.

This chart illustrates how this leveling effect has actually worked over the years 2004 - 2013.

CHART 12

Market and Actuarial Rates of Return for Years Ended December 31, 2004 - 2013



SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed.

The net gain from this other experience for the two-year period ending December 31, 2013 amounted to \$4,917,186, which is 2.2% of the actuarial accrued liability.

A brief summary of the demographic gain/(loss) experience of the Salem for the two-year period ending December 31, 2013 is shown in the chart below.

The chart shows elements of the experience gain/(loss) for the most recent years.

CHART 13

Experience Due to Changes in Demographics for Two-Year Period Ended December 31, 2013

1. More deaths than expected among retired members and beneficiaries	\$858,002
2. Salary increases less than expected for continuing actives	2,842,673
3. Miscellaneous experience gain (including data adjustments and transfers)	<u>1,216,511</u>
4. Total	\$4,917,186

SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

This valuation reflects the following changes in actuarial assumptions and methods:

- The actuarial cost method was changed to better reflect the impact of the plan changes effective for employees hired on or after April 2, 2012.
- The investment return assumption was lowered from 8.0% to 7.75%.
- The pre-retirement mortality assumption was changed from the RP-2000 Employee Mortality Table projected 12 years with Scale AA to the RP-2000 Employee Mortality Table projected generationally using Scale AA from 2010.
- The mortality assumption for non-disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table projected 12 years with Scale AA to the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale AA from 2010.
- The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward two years projected 12 years with Scale AA to the RP-2000 Healthy Annuitant Mortality Table set forward three years for males only projected generationally using Scale AA from 2010.
- The assumed retirement age for inactive vested participants was changed from age 65 to age 55 for Group 1 and 2 members hired prior to April 2, 2012. For participants hired April 2, 2012 or later, the assumption is age 60 for Group 1 members, age 55 for Group 2 members, and age 50 for Group 4 members.

- The salary increase assumption was changed from a level 5% to rates based on years of service with ultimate rates of 4.25% per year for Group 1 members, 4.50% per year for Group 2 members and 4.75% per year for Group 4 members, including an allowance for inflation of 4.0% per year.

Changing these assumptions and methods resulted in a net increase in the unfunded actuarial accrued liability of \$7,794,159 and a net increase in the normal cost of \$37,644.

The following plan change is included in this valuation:

- Members hired on or after April 2, 2012 are covered by the provisions of Chapter 32 as amended by of Chapter 176 of the Acts of 2011 and Chapter 139 of the Acts of 2012.

SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

The unfunded liability was expected to decrease from \$107.5 million as of January 1, 2012 to \$107.1 million as of January 1, 2014. The actuarial unfunded liability as of January 1, 2014 of \$117.1 million is \$10.0 million higher than expected as detailed in Chart 14 below.

CHART 14

Development of Unfunded Actuarial Accrued Liability and (Gain)/Loss

	Year Ended	
	December 31, 2013	December 31, 2012
1. Unfunded actuarial accrued liability at beginning of year	\$107,510,833	\$107,540,201
2. Normal cost at beginning of year	6,063,633	5,830,416
3. Total contributions	-14,989,342	-14,408,464
4. Interest		
(a) For whole year on (1) + (2)	\$9,085,957	\$9,069,650
(b) For half year on (3)	<u>-541,973</u>	<u>-520,970</u>
(c) Total interest	<u>8,543,984</u>	<u>8,548,680</u>
5. Expected unfunded actuarial accrued liability	\$107,129,108	\$107,510,833
6. Changes due to:		
(a) Experience loss	\$2,160,683	--
(b) Assumptions and method changes	<u>7,794,159</u>	--
(c) Total changes	<u>9,954,842</u>	--
7. Unfunded actuarial accrued liability at end of year	<u>\$117,083,950</u>	--

SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

D. RECOMMENDED CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability.

The recommended contribution for fiscal 2015 is equal to the City's budgeted amount of \$11,948,259. The results of this valuation will first be reflected in the fiscal 2016 appropriation which was set to \$12,000,000. The funding schedule in Chart 16 fully funds the System by June 30, 2031. The amortization payments on the 2002 ERI, the

2003 ERI and the remaining unfunded liability increase 4.50% per year. The amortization payment on the 2010 ERI is a level payment. The fiscal 2017 appropriation is calculated as \$12,527,730 or 4.40% higher than the 2016 appropriation. The previously budgeted amount for fiscal 2015 includes an adjustment for timing. Fiscal years 2016 and 2017 assume payment on July 1. See Exhibit G in Section 3 for department results that include an adjustment for timing.

The chart compares this valuation's recommended contribution with the prior valuation.

CHART 15
Recommended Contribution

	Year Beginning January 1			
	2014		2012	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	\$5,669,287	14.03%	\$5,480,416	14.78%
2. Administrative expenses	350,000	0.87%	350,000	0.94%
3. Expected employee contributions	<u>-3,788,003</u>	<u>-9.38%</u>	<u>-3,431,582</u>	<u>-9.26%</u>
4. Employer normal cost: (1) + (2) + (3)	\$2,231,284	5.52%	\$2,398,834	6.47%
5. Actuarial accrued liability	237,524,910		214,346,363	
6. Actuarial value of assets	<u>120,440,960</u>		<u>106,806,162</u>	
7. Unfunded actuarial accrued liability: (5) - (6)	\$117,083,950		\$107,540,201	
8. Employer normal cost projected to July 1, 2014 and 2012	2,310,734	5.61%	2,453,495	6.49%
9. Projected unfunded actuarial accrued liability	123,692,470		111,759,056	
10. Payment on projected unfunded actuarial accrued liability	9,637,525	23.39%	8,487,884	22.45%
11. Recommended contribution: (8) + (10)	<u>\$11,948,259</u>	<u>29.00%</u>	<u>\$10,941,379</u>	<u>28.94%</u>
12. Projected payroll	\$41,199,749		\$37,810,809	

Notes: Recommended contributions include adjustment for timing (see Exhibit G in Section 3 for detail).

Item (8) increased by \$35,262 and item (9) increased by \$2,156,171 to reflect the merger of the Essex Agricultural & Technical School with the North Shore Regional Vocational Technical School

SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

The funding schedule shown in Chart 16 reflects an estimated employer normal cost of \$35,262 and unfunded actuarial accrued liability of \$2,156,171 as of July 1, 2014 due to the merger of the Essex Agricultural & Technical School with the North Shore Regional Vocational Technical School. These estimates are based on participant information for Essex Agricultural & Technical School, including Annuity Savings Fund balances of \$1,329,327, provided by the staff of the City of Salem Contributory Retirement System.

The prior funding schedule fully funded the System by June 30, 2032 with appropriations that increase 4.50% per year.

SECTION 2: Valuation Results for the City of Salem Contributory Retirement System

CHART 16

Funding Schedule

(1) Fiscal Year Ended June 30	(2) Employer Normal Cost	(3) Amortization of ERI Liability	(4) Amortization of Remaining Liability	(5) Total Plan Cost: (2) + (3) + (4)	(6) Total Unfunded Actuarial Accrued Liability at Beginning of Fiscal Year	(7) Total Plan Cost % Increase
2015	\$2,310,734	\$246,064	\$9,391,461	\$11,948,259	\$123,692,470	4.50%
2016	2,412,490	256,260	9,331,250	12,000,000	122,894,203	0.43%
2017	2,518,705	266,914	9,742,112	12,527,730	122,087,962	4.40%
2018	2,629,572	278,047	10,180,507	13,088,125	120,765,054	4.47%
2019	2,745,294	289,682	10,638,629	13,673,605	118,855,254	4.47%
2020	2,866,082	301,840	11,117,368	14,285,290	116,291,281	4.47%
2021	2,992,159	314,545	11,617,649	14,924,353	112,999,659	4.47%
2022	3,123,753	327,817	12,140,443	15,592,014	108,900,192	4.47%
2023	3,261,106	322,195	12,686,763	16,270,065	103,905,407	4.35%
2024	3,404,469	336,694	13,257,668	16,998,831	97,940,924	4.48%
2025	3,554,104	351,845	13,854,263	17,760,212	90,883,421	4.48%
2026	3,710,283	367,678	14,477,705	18,555,666	82,619,805	4.48%
2027	3,873,292	384,224	15,129,201	19,386,717	73,026,940	4.48%
2028	4,043,428	401,514	15,810,016	20,254,957	61,970,812	4.48%
2029	4,221,001	419,582	16,521,466	21,162,049	49,305,627	4.48%
2030	4,406,335	438,463	17,264,933	22,109,731	34,872,834	4.48%
2031	4,599,767	458,215	18,041,854	23,099,836	18,500,069	4.48%
2032	4,801,652	--	--	4,801,652	--	-79.21%

Notes: 2015 payment is budgeted appropriation from prior valuation and includes adjustment for timing.

2016 and future payments are assumed to be made on July 1.

Item (2) reflects 4.0% growth in payroll and 0.15% adjustment to total normal cost to reflect the effects of mortality improvement due to the generational mortality assumption.

Item (3) reflects level dollar amortization of 2010 ERI and increasing (4.50% per year) amortization of 2002 and 2003 ERI.

Item (4) increases 4.50% per year.

Includes estimated additional employer normal cost of \$35,262 and unfunded actuarial liability of \$2,156,171 as of July 1, 2014 due to the merger of Essex Agricultural and Technical School with the North Shore Regional Vocational Technical School.

SECTION 3: Supplemental Information for the City of Salem Contributory Retirement System

EXHIBIT A

Table of Plan Coverage

	Year Ended December 31		Change From Prior Year
Category	2013	2011	
Active participants in valuation:			
Number	827	804	2.9%
Average age	49.2	48.9	N/A
Average years of service	12.6	12.3	N/A
Total payroll	\$38,667,769	\$35,402,225	9.2%
Average payroll	46,757	44,033	6.2%
Account balances	38,850,603	34,890,044	11.4%
Inactive participants entitled to a return of their employee contributions	207	188	10.1%
Inactive participants with a vested right to a deferred or immediate benefit	26	23	13.0%
Retired participants:			
Number in pay status	427	436	-2.1%
Average age	75.4	74.9	N/A
Average monthly benefit	\$1,837	\$1,731	6.1%
Disabled participants:			
Number in pay status	61	62	-1.6%
Average age	67.2	66.2	N/A
Average monthly benefit	\$3,148	\$3,031	3.9%
Beneficiaries in pay status:			
Number in pay status	83	83	0.0%
Average age	76.7	78.4	N/A
Average monthly benefit	\$1,208	\$1,099	9.9%

SECTION 3: Supplemental Information for the City of Salem Contributory Retirement System

EXHIBIT B

Participants in Active Service as of December 31, 2013 By Age, Years of Service, and Average Payroll

Age	Years of Service									
	Total	0-4	5-9	10-14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 25	22	22	--	--	--	--	--	--	--	--
	\$22,781	\$22,781	--	--	--	--	--	--	--	--
25 - 29	62	53	9	--	--	--	--	--	--	--
	35,237	33,221	\$47,109	--	--	--	--	--	--	--
30 - 34	46	31	12	2	1	--	--	--	--	--
	46,158	41,153	56,948	\$56,146	\$51,866	--	--	--	--	--
35 - 39	51	24	13	12	2	--	--	--	--	--
	46,791	33,093	51,095	68,118	55,218	--	--	--	--	--
40 - 44	81	31	17	13	13	7	--	--	--	--
	51,122	36,971	46,779	60,301	67,266	\$77,305	--	--	--	--
45 - 49	123	23	25	16	22	22	15	--	--	--
	55,501	41,922	34,205	44,798	61,341	79,805	\$79,024	--	--	--
50 - 54	145	34	19	29	12	21	27	3	--	--
	50,361	29,776	32,988	41,435	53,369	76,242	75,529	\$60,259	--	--
55 - 59	140	18	17	24	24	24	18	7	8	--
	47,876	28,534	23,278	34,797	41,902	52,299	72,676	97,781	\$88,087	--
60 - 64	105	11	17	24	19	14	8	5	6	1
	42,385	27,838	28,539	35,436	42,860	47,087	48,901	81,076	81,347	\$50,322
65 - 69	40	6	3	10	4	5	6	5	1	--
	41,974	20,395	33,998	36,465	50,400	53,719	39,299	56,036	103,754	--
70 & over	12	1	1	2	1	1	1	3	2	--
	30,870	16,984	21,940	17,135	22,080	67,393	12,200	32,712	48,721	--
Total	827	254	133	132	98	94	75	23	17	1
	\$46,757	\$33,125	\$37,997	\$43,307	\$51,738	\$65,408	\$68,960	\$71,693	\$81,998	\$50,322

SECTION 3: Supplemental Information for the City of Salem Contributory Retirement System

EXHIBIT C

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended December 31, 2013	Year Ended December 31, 2012
Net assets at actuarial value at the beginning of the year	\$108,832,047	\$106,806,161
Contribution income:		
Employer contributions	\$11,433,741	\$10,941,379
Employee contributions	3,555,601	3,467,085
Less administrative expenses	<u>-226,939</u>	<u>-421,160</u>
Net contribution income	14,762,403	13,987,304
Net investment income:	<u>9,865,386</u>	<u>959,265</u>
Total income available for benefits	\$24,627,789	\$14,946,569
Less benefit payments:		
Pensions	-\$12,582,576	-\$12,407,152
Net 3(8)(c) reimbursements	-340,611	-210,057
Refunds, annuities, & Option B refunds	<u>-95,689</u>	<u>-303,475</u>
Net benefit payments	-\$13,018,876	-\$12,920,683
Change in reserve for future benefits	\$11,608,913	\$2,025,886
Net assets at actuarial value at the end of the year	\$120,440,960	\$108,832,047

SECTION 3: Supplemental Information for the City of Salem Contributory Retirement System**EXHIBIT D****Development of the Fund Through December 31, 2013**

Year Ended December 31	Employer Contributions	Employee Contributions	Other Contributions	Net Investment Return*	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
2004	\$6,617,862	\$2,860,514	\$14,635	\$2,177,899	\$313,259	\$10,215,286	\$81,801,377
2005	8,022,361	2,647,749	30,195	3,233,422	407,230	10,531,830	84,796,044
2006	8,468,103	2,848,916	0	6,050,918	312,365	10,804,187	91,047,430
2007	9,176,126	3,112,895	0	8,383,232	401,427	11,319,785	99,998,471
2008	9,257,251	2,811,235	0	-13,989,510	365,143	11,076,469	86,635,835
2009	9,628,758	2,996,026	0	12,996,591	244,673	11,965,806	100,046,731
2010	9,991,587	3,133,826	0	5,296,489	334,755	12,158,408	105,975,469
2011	10,497,479	3,380,606	0	33,718	309,600	12,771,512	106,806,161
2012	10,941,379	3,467,085	0	959,265	421,160	12,920,683	108,832,047
2013	11,433,741	3,555,601	0	9,865,386	226,939	13,018,876	120,440,960

* Net of investment fees

SECTION 3: Supplemental Information for the City of Salem Contributory Retirement System

EXHIBIT E

Table of Amortization Bases as of July 1, 2014

Type	Annual Payment	Years Remaining	Outstanding Balance
2002 ERI	\$62,821	17	\$845,319
2003 ERI	163,742	17	2,203,335
2010 ERI	19,501	8	121,902
Remaining unfunded liability	<u>9,391,461</u>	17	<u>120,521,914</u>
Total	\$9,637,525		\$123,692,470

Notes: Amortization payments increase at 4.5% per year, except 2010 ERI payment which is level.

Payment on remaining unfunded liability reflects adjustment to set fiscal 2015 appropriation to the budgeted amount.

SECTION 3: Supplemental Information for the City of Salem Contributory Retirement System

EXHIBIT F

Department Statistics as of January 1, 2014

Category	Water	South Essex Sewerage	Housing	North Shore Regional VOC	City	Total
Active participants in valuation						
Number	14	55	26	61	671	827
Average age	52.2	54.5	50.2	51.5	48.5	49.2
Average service	20.3	18.1	12.8	6.6	12.5	12.6
Total payroll	\$947,145	\$3,356,460	\$1,371,374	\$1,802,830	\$31,189,960	\$38,667,769
Average payroll	67,653	61,027	52,745	29,555	46,483	46,757
Inactive participants entitled to a return of their employee contributions						
	0	3	4	14	186	207
Inactive participants with a vested right to a deferred or immediate benefit						
	0	2	1	1	22	26
Retired participants and beneficiaries in pay status						
Retired participants	10	24	13	12	368	427
Disabled participants	0	2	2	1	56	61
Beneficiaries	3	3	3	3	71	83
Total number in pay status	13	29	18	16	495	571
Total monthly benefits	\$27,272	\$74,382	\$26,923	\$19,718	\$928,556	\$1,076,852
Average monthly benefit	2,098	2,565	1,496	1,232	1,876	1,886

SECTION 3: Supplemental Information for the City of Salem Contributory Retirement System

EXHIBIT G

Department Results

Category	Water	South Essex Sewerage	Housing	North Shore Regional VOC	City	Salem Retirement Board	Total
1. Total normal cost	\$87,304	\$375,989	\$155,359	\$251,761	\$4,784,762	\$14,112	\$5,669,287
2. Administrative expenses	5,390	23,212	9,591	15,543	295,393	871	350,000
3. Expected employee contributions	<u>-86,264</u>	<u>-329,855</u>	<u>-134,757</u>	<u>-176,560</u>	<u>-3,049,144</u>	<u>-11,423</u>	<u>-3,788,003</u>
4. Employer normal cost: (1) + (2) + (3)	\$6,430	\$69,346	\$30,193	\$90,744	\$2,031,011	\$3,560	\$2,231,284
5. Employer normal cost as a percent of payroll	0.65%	1.98%	2.11%	4.82%	6.25%	3.11%	5.52%
6. Actuarial accrued liability	\$6,477,353	\$20,358,057	\$6,902,373	\$5,291,422	\$197,196,507	\$1,299,198	\$237,524,910
7. Actuarial value of assets	<u>3,273,434</u>	<u>11,101,302</u>	<u>3,379,113</u>	<u>2,647,931</u>	<u>99,377,208</u>	<u>661,973</u>	<u>120,440,960</u>
8. Unfunded actuarial accrued liability: (6) – (7)	\$3,203,919	\$9,256,755	\$3,523,260	\$2,643,491	\$97,819,299	\$637,225	\$117,083,950
9. Reallocation of Retirement Board unfunded actuarial accrued liability	<u>17,533</u>	<u>50,655</u>	<u>19,280</u>	<u>14,466</u>	<u>535,291</u>	<u>-637,225</u>	<u>0</u>
10. Unfunded actuarial accrued liability with reallocation: (8) + (9)	\$3,221,452	\$9,307,410	\$3,542,540	\$2,657,957	\$98,354,591	\$0	\$117,083,950
11. Unfunded actuarial accrued liability with reallocation, including Essex Agricultural and Technical School	\$3,343,954	\$9,661,343	\$3,677,252	\$4,915,202	\$102,094,719	\$0	\$123,692,470
12. Reallocation of Retirement Board normal cost	10	111	48	145	3,246	-3,560	0
13. Employer normal cost with reallocation: (4) + (12)	6,440	69,457	30,242	90,889	2,034,257	0	2,231,284
14. Employer normal cost projected to July 1, 2014, including Essex Agricultural and Technical School	6,568	70,832	30,840	127,951	2,074,543	0	2,310,734
15. 2002 ERI payments	0	36,972	20,865	4,984	0	0	62,821
16. 2003 ERI payments	4,078	0	0	2,310	157,355	0	163,743
17. 2010 ERI payments	0	0	0	0	19,501	0	19,501
18. Payment on remaining liability, including Essex Agricultural and Technical School	<u>245,332</u>	<u>780,003</u>	<u>284,647</u>	<u>177,463</u>	<u>7,870,222</u>	<u>0</u>	<u>9,357,667</u>
19. Budgeted appropriation for fiscal 2015: (14) + (15) + (16) + (17) + (18)	\$255,978	\$887,807	\$336,352	\$312,708	\$10,121,621	\$0	\$11,914,466

SECTION 3: Supplemental Information for the City of Salem Contributory Retirement System

Category	Water	South Essex Sewerage	Housing	North Shore Regional VOC	City	Salem Retirement Board	Total
20. Payment date	August 1	August 1	August 1	June 30	July 1	N/A	N/A
21. Adjustment for timing	1.006458	1.006458	1.006458	1.077500	1.000000	0	0
22. Fiscal 2015 appropriation, adjusted for timing: (19) x (21)	\$257,631	\$893,540	\$338,524	\$336,943	\$10,121,621	\$0	\$11,948,259
23. Fiscal 2016 appropriation	266,614	816,337	315,214	530,660	10,071,175	0	12,000,000
24. Fiscal 2016 appropriation, adjusted for timing: (23) x (21)	268,336	821,609	317,250	571,786	10,071,175	0	12,050,156
25. Fiscal 2017 appropriation	278,357	852,318	329,114	554,033	10,513,908	0	12,527,730
26. Fiscal 2017 appropriation, adjusted for timing: (25) x (21)	280,155	857,822	331,239	596,971	10,513,908	0	12,580,095

Notes: Administrative expenses allocated in proportion to total normal cost.

Actuarial value of assets allocated in proportion to actuarial accrued liability less present value of future ERI payments and adjusted for additional contributions by South Essex Sewerage.

The unfunded accrued liability in (11) and normal cost in (14) include unfunded accrued liability and normal cost of \$2,156,171 and \$35,262, respectively. due to merger of Essex Agricultural and Technical School and North Shore Regional Vocational Technical School.

SECTION 3: Supplemental Information for the City of Salem Contributory Retirement System

EXHIBIT H

Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or actuarial assumptions:

The estimates on which the cost of the Plan is calculated including:

- (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;
- (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) Retirement rates — the rate or probability of retirement at a given age;
- (d) Withdrawal rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal cost:

The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial accrued liability for actives:

The equivalent of the accumulated normal cost allocated to the years before the valuation date.

Actuarial accrued liability for pensioners:

The single-sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Unfunded actuarial accrued liability:

The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There are many approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

SECTION 3: Supplemental Information for the City of Salem Contributory Retirement System

Amortization of the unfunded actuarial accrued liability:

Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

Investment return:

The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

EXHIBIT I

Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:

1. Retired participants as of the valuation date (including 83 beneficiaries in pay status)	571
2. Participants active during the year ended December 31, 2013 with total accumulated contributions of \$38,850,603 and projected payroll of \$40,399,678	827
3. Inactive participants with a right to a return of their employee contributions as of December 31, 2013	207
4. Inactive participants with a vested right to a deferred or immediate benefit as of December 31, 2013	26

The actuarial factors as of January 1, 2014 are as follows:

1. Normal cost, including administrative expenses		\$6,019,287
2. Expected employer contributions		<u>-3,788,003</u>
3. Employer normal cost: (1) + (2)		\$2,231,284
4. Actuarial accrued liability		237,524,910
Retired participants and beneficiaries	\$112,143,911	
Active participants	121,471,465	
Inactive participants	3,909,534	
5. Actuarial value of assets (\$123,879,403 at market value)		120,440,960
6. Unfunded actuarial accrued liability: (4) - (5)		117,083,950

The actuarial factors projected to July 1, 2014 are as follows:

1. Employer normal cost projected to July 1, 2014	\$2,310,734
2. Projected unfunded actuarial accrued liability	123,692,470
3. Payment on projected unfunded actuarial accrued liability	9,637,525
4. Recommended contribution: (1) + (3)	11,948,259
5. Projected payroll	41,199,749

Notes: Includes estimated additional employer normal cost of \$35,262 and unfunded actuarial liability of \$2,156,171 as of July 1, 2014 due to the merger of Essex Agricultural and Technical School with the North Shore Regional Vocational Technical School.

Amortization payments increase at 4.5% per year.

See Exhibit G in Section 3 for department results that include an adjustment for timing.

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

EXHIBIT II

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended December 31	Annual Required Contributions	Actual Contributions	Percentage Contributed
2004	\$6,617,862	\$6,617,862	100.0%
2005	8,052,556	8,052,556	100.0%
2006	8,468,103	8,468,103	100.0%
2007	9,176,126	9,176,126	100.0%
2008	9,257,251	9,257,251	100.0%
2009	9,628,758	9,628,758	100.0%
2010	9,991,587	9,991,587	100.0%
2011	10,497,479	10,497,479	100.0%
2012	10,941,379	10,941,379	100.0%
2013	11,433,741	11,433,741	100.0%

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

EXHIBIT III

Supplementary Information Required by the GASB – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll* [(b) - (a)] / (c)
01/01/1999	\$68,563,143	\$111,294,953	\$42,731,810	61.60%	\$25,411,629	168.16%
01/01/2001	73,727,923	117,334,727	43,606,804	62.84%	29,072,187	149.99%
01/01/2003	76,438,885	137,111,559	60,672,674	55.75%	31,089,195	195.16%
01/01/2004	80,659,012	142,499,185	61,840,173	56.60%	29,355,291	210.66%
01/01/2005	81,801,377	156,479,479	74,678,102	52.28%	31,328,083	238.37%
01/01/2006	84,796,044	166,958,606	82,162,562	50.79%	32,824,144	250.31%
01/01/2008	99,998,471	179,382,299	79,383,828	55.75%	34,410,002	230.70%
01/01/2010	100,046,731	193,470,036	93,423,305	51.71%	34,583,002	270.14%
01/01/2012	106,806,161	214,346,363	107,540,202	49.83%	37,076,549	290.05%
01/01/2014	120,440,960	237,524,910	117,083,950	50.71%	40,399,678	289.81%

* *Not less than zero*

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

EXHIBIT IV

Supplementary Information Required by the GASB

Valuation date	January 1, 2014
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Increasing at 4.5% per year for 2002 and 2003 ERI and remaining unfunded liability and level dollar amortization for 2010 ERI.
Remaining amortization period	As of July 1, 2014, 8 years remaining on 2010 ERI, 17 years remaining on the 2002 and 2003 ERI and the remaining unfunded liability.
Asset valuation method	The difference between the expected return on an actuarial basis and actual investment return on a market value basis is recognized over a five-year period.
Actuarial assumptions:	
Investment rate of return	7.75% (Previously, 8.00%)
Projected salary increases	Varies by length of service with ultimate rates of 4.25% for Group 1, 4.50% for Group 2 and 4.75% for Group 4 (Previously, 5.0% per year)
Cost of living adjustments	3.00% for first \$12,000 of retirement income
Plan membership:	
Retired participants and beneficiaries receiving benefits	571
Terminated participants entitled to a return of their employee contributions	207
Terminated participants with a vested right to a deferred or immediate benefit	26
Active participants	<u>827</u>
Total	1,631

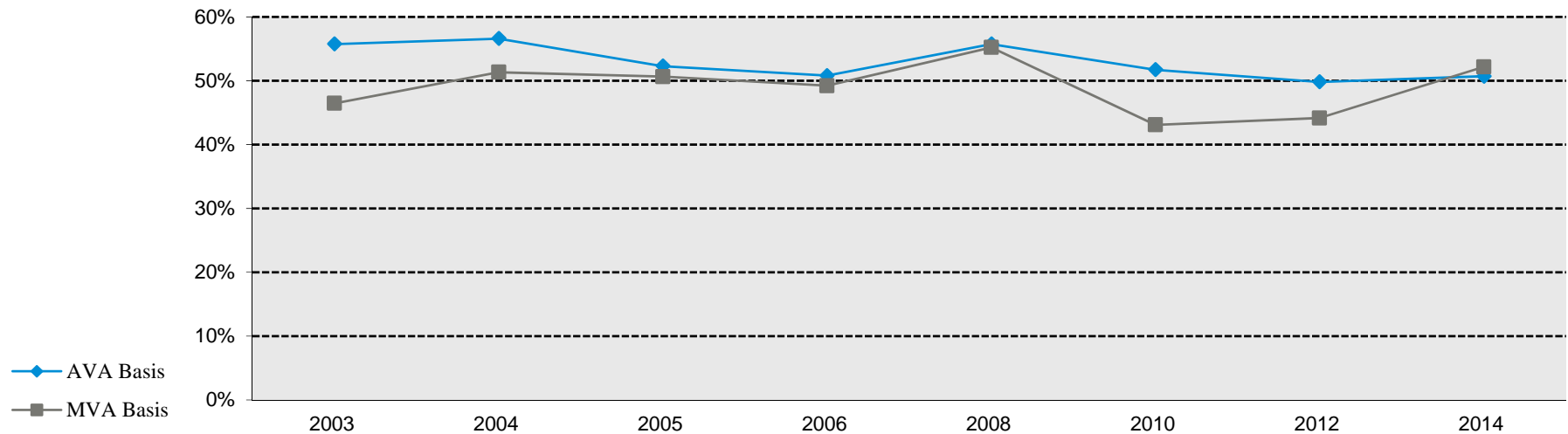
SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

EXHIBIT V

Funded Ratio

A critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the Plan as calculated. High ratios indicate a well-funded plan with assets sufficient to cover the plan's actuarial accrued liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

The chart below depicts a history of the funded ratios for this plan. The chart below depicts a history of the funded ratios for this plan. On a market value basis, the funded ratio increased from 44.15% as of January 1, 2012 to 52.15% as of January 1, 2014. On an actuarial basis, the funded ratio has increased from 49.83% to 50.71% as of January 1, 2014.



SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

EXHIBIT VI

Actuarial Assumptions and Actuarial Cost Method

Mortality Rates:

Pre-Retirement:

RP-2000 Employee Mortality Table projected generationally with Scale AA from 2010 (Previously, RP-2000 Employee Mortality Table projected 12 years with Scale AA)

Healthy Retiree:

RP-2000 Healthy Annuitant Mortality Table projected generationally with Scale AA from 2010 (Previously, RP-2000 Healthy Annuitant Mortality Table projected 12 years with Scale AA)

Disabled Retiree:

RP-2000 Employee Mortality Table set forward three years for males only projected generationally with Scale AA from 2010 (Previously, RP-2000 Health Annuitant Mortality Table set forward 3 years)

The RP-2000 Employee Mortality Table setting the base year to 2010 and the RP-2000 Healthy Annuitant Mortality Table setting the base year to 2010 were determined to contain provisions appropriate to reasonably reflect future mortality improvement, based on a review of the mortality experience of the plan.

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

Termination Rates before Retirement:

Groups 1 and 2 – Rate (%)

Age	Mortality				Disability
	Male		Female		
	Current	Previous	Current	Previous	
20	0.03	0.03	0.02	0.02	0.01
25	0.04	0.03	0.02	0.02	0.02
30	0.04	0.04	0.03	0.02	0.03
35	0.08	0.07	0.05	0.04	0.06
40	0.11	0.10	0.07	0.06	0.10
45	0.15	0.13	0.11	0.09	0.15
50	0.21	0.17	0.17	0.14	0.19
55	0.30	0.24	0.25	0.23	0.24
60	0.49	0.40	0.39	0.37	0.28

Notes: Mortality rates do not reflect generational projections.
 55% of the disability rates shown represent accidental disability.
 20% of the accidental disabilities will die from the same cause as the disability.
 55% of the death rates shown represent accidental death.

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

Age	Group 4 – Rate (%)				Disability
	Mortality				
	Male		Female		
	Current	Previous	Current	Previous	
20	0.03	0.03	0.02	0.02	0.10
25	0.04	0.03	0.02	0.02	0.20
30	0.04	0.04	0.03	0.02	0.30
35	0.08	0.07	0.05	0.04	0.30
40	0.11	0.10	0.07	0.06	0.30
45	0.15	0.13	0.11	0.09	1.00
50	0.21	0.17	0.17	0.14	1.25
55	0.30	0.24	0.25	0.23	1.20
60	0.49	0.40	0.39	0.37	0.85

Notes: Mortality rates do not reflect generational projections.
 90% of the disability rates shown represent accidental disability.
 60% of the accidental disabilities will die from the same cause as the disability.
 90% of the death rates shown represent accidental death.

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

Withdrawal Rates:

		Rate per year (%)	
Years of Service	Groups 1 and 2	Years of Service	Group 4
0	15.0	0 – 10	1.5
1	12.0	11+	0.0
2	10.0		
3	9.0		
4	8.0		
5 – 9	7.6		
10 – 14	5.4		
15 – 19	3.3		
20 – 24	2.0		
25 - 29	1.0		
30+	0.0		

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

Retirement Rates:

Age	Rate per year (%)		
	Groups 1 and 2		Group 4
	Male	Female	
45 – 49	N/A	N/A	1.0%
50 – 51	1.0	1.5	2.0
52	1.0	2.0	2.0
53	1.0	2.5	5.0
54	2.0	2.5	7.5
55	2.0	5.5	15.0
56 – 57	2.5	6.5	10.0
58	5.0	6.5	10.0
59	6.5	6.5	15.0
60	12.0	5.0	20.0
61	20.0	13.0	20.0
62	30.0	15.0	25.0
63	25.0	12.5	25.0
64	22.0	18.0	30.0
65	40.0	15.0	100.0
66 - 67	25.0	20.0	--
68	30.0	25.0	--
69	30.0	20.0	--
70	100.0	100.0	--

Retirement Age for Inactive Vested Participants:

Age 55 for participants hired prior to April 2, 2012. For participants hired April 2, 2012 or later, age 60 for Group 1 members, age 55 for Group 2 members and age 50 for Group 4 members. (Previously, age 65 for Group 1 members and Group 2 members and age 55 for Group 4 members.)

Unknown Data for Participants:

Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

Age of Spouse: Female (or male) spouses 3 years younger (or older) than their spouses.

Percent Married: 80%

Net Investment Return: 7.75% (Previously, 8.00%)

Interest on Employee Contributions: 3.5%

Investment Expenses: \$350,000 for calendar 2014

Salary Increases:

Years of Service	Group 1	Group 2	Group 4
0	6.00%	6.00%	7.00%
1	5.50%	5.50%	6.50%
2	5.50%	5.50%	6.00%
3	5.25%	5.25%	5.75%
4	5.25%	5.25%	5.25%
5	4.75%	4.75%	5.25%
6	4.75%	4.75%	4.75%
7	4.50%	4.50%	4.75%
8	4.50%	4.50%	4.75%
9+	4.25%	4.50%	4.75%

(Previously, 5.0%)

2013 Salary: Salary reported in the data.

Total Service: Total creditable service reported in the data.

Actuarial Value of Assets: Market value of assets less unrecognized return in each of the last five years. Unrecognized return is equal to the difference between the actual market value return and the expected actuarial value return and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

Actuarial Cost Method:	Entry Age Normal Actuarial Cost Method. Entry Age is the age of the participant less total creditable service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary. Normal Cost is determined by using the plan of benefits applicable to each participant. (Previously, Normal Cost determined as if the current plan of benefits had always been in effect.)
Changes in Assumptions:	<p>Based on past experience and future expectations the following actuarial assumptions were changed:</p> <ul style="list-style-type: none">➤ The actuarial cost method was changed to better reflect the impact of the plan changes effective for employees hired on or after April 2, 2012.➤ The pre-retirement mortality assumption was changed from the RP-2000 Employee Mortality Table projected 12 years with Scale AA to the RP-2000 Employee Mortality Table projected generationally using Scale AA from 2010.➤ The mortality assumption for non-disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table projected 12 years with Scale AA to the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale AA from 2010.➤ The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward two years projected 12 years with Scale AA to the RP-2000 Healthy Annuitant Mortality Table set forward three years for males only projected generationally using Scale AA from 2010.➤ The assumed retirement age for inactive vested participants was changed from age 65 to age 55 for Group 1 and 2 members hired prior to April 2, 2012. For participants hired April 2, 2012 or later, the assumption is age 60 for Group 1 members, age 55 for Group 2 members, and age 50 for Group 4 members.➤ The investment return assumption was decreased from 8.00% to 7.75%.➤ The salary increase assumption was changed from a level 5% to rates based on years of service with ultimate rates of 4.25% per year for Group 1 members, 4.50% per year for Group 2 members and 4.75% per year for Group 4 members, including an allowance for inflation of 4.0% per year.

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

EXHIBIT VII

Summary of Plan Provisions

This exhibit summarizes the major provisions of Chapter 32 of the Laws of Massachusetts.

Plan Year: January 1 – December 31

Retirement Benefits

Employees covered by the Contributory Retirement Law are classified into one of four groups depending on job classification. Group 1 comprises most positions in state and local government. It is the general category of public employees. Group 4 comprises mainly police and firefighters. Group 2 is for other specified hazardous occupations. (Officers and inspectors of the State Police are classified as Group 3.)

For employees hired prior to April 2, 2012, the annual amount of the retirement allowance is based on the member's final three-year average salary multiplied by the number of years and full months of creditable service at the time of retirement and multiplied by a percentage according to the following table based on the age of the member at retirement:

Age Last Birthday at Date of Retirement

Percent	Group 1	Group 2	Group 4
2.5	65 or over	60 or over	55 or over
2.4	64	59	54
2.3	63	58	53
2.2	62	57	52
2.1	61	56	51
2.0	60	55	50
1.9	59	--	49
1.8	58	--	48
1.7	57	--	47
1.6	56	--	46
1.5	55	--	45

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

A member's final three-year average salary is defined as the greater of the highest consecutive three-year average annual rate of regular compensation and the average annual rate of regular compensation received during the last three years of creditable service prior to retirement.

For employees hired on April 2, 2012 or later, the annual amount of the retirement allowance is based on the member's final five-year average salary multiplied by the number of years and full months of creditable service at the time of retirement and multiplied by a percentage according to the following tables based on the age and years of creditable service of the member at retirement:

For members with less than 30 years of creditable service:

Age Last Birthday at Date of Retirement

Percent	Group 1	Group 2	Group 4
2.50	67 or over	62 or over	57 or over
2.35	66	61	56
2.20	65	60	55
2.05	64	59	54
1.90	63	58	53
1.75	62	57	52
1.60	61	56	51
1.45	60	55	50

For members with 30 years of creditable service or greater:

Age Last Birthday at Date of Retirement

Percent	Group 1	Group 2	Group 4
2.500	67 or over	62 or over	57 or over
2.375	66	61	56
2.250	65	60	55
2.125	64	59	54
2.000	63	58	53
1.875	62	57	52
1.750	61	56	51
1.625	60	55	50

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

A member's final five-year average salary is defined as the greater of the highest consecutive five-year average annual rate of regular compensation and the average annual rate of regular compensation received during the last five years of creditable service prior to retirement.

For employees who became members after January 1, 2011, regular compensation is limited to 64% of the federal limit found in 26 U.S.C. 401(a)(17). In addition, regular compensation for members who retire after April 2, 2012 will be limited to prohibit "spiking" of a member's salary to increase the retirement benefit.

For all employees, the maximum annual amount of the retirement allowance is 80 percent of the member's final average salary. Any member who is a veteran also receives an additional yearly retirement allowance of \$15 per year of creditable service, not exceeding \$300. The veteran allowance is paid in addition to the 80 percent maximum.

Employee Contributions

Date of Hire	Contribution Rate
Prior to January 1, 1975	5%
January 1, 1975 – December 31, 1983	7%
January 1, 1984 – June 30, 1996	8%
July 1, 1996 onward	9%

In addition, employees hired after December 31, 1978 contribute an additional 2 percent of salary in excess of \$30,000.

Employees hired after 1983 who voluntarily withdraw their contributions with less than 10 ten years of credited service receive 3% interest on their contributions.

Employees in Group 1 hired on or after April 2, 2012 with 30 years of creditable service or greater will pay a base contribution rate of 6%.

Retirement Benefits (Superannuation)

Members of Group 1, 2 or 4 hired prior to April 2, 2012 may retire upon the attainment of age 55. For retirement at ages below 55, twenty years of creditable service is required.

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

Members hired prior to April 2, 2012 who terminate before age 55 with ten or more years of creditable service are eligible for a retirement allowance upon the attainment of age 55 (provided they have not withdrawn their accumulated deductions from the Annuity Savings Fund of the System).

Members of Group 1 hired April 2, 2012 or later may retire upon the attainment of age 60. Members of Group 2 or 4 hired April 2, 2012 or later may retire upon the attainment of age 55. Members of Group 4 may retire upon attainment of age 50 with ten years of creditable service.

Members hired April 2, 2012 or later who terminate before age 55 (60 for members of Group 1) with ten or more years of creditable service are eligible for a retirement allowance upon the attainment of age 55 (60 for members of Group 1) provided they have not withdrawn their accumulated deductions from the Annuity Savings Fund of the System.

Ordinary Disability Benefits

A member who is unable to perform his or her job due to a non-occupational disability will receive a retirement allowance if he or she has ten or more years of creditable service and has not reached age 55. The annual amount of such allowance shall be determined as if the member retired for superannuation at age 55 (age 60 for Group 1 members hired on or after April 2, 2012), based on the amount of creditable service at the date of disability. For veterans, there is a minimum benefit of 50 percent of the member's most recent year's pay plus an annuity based on his or her own contributions.

Accidental Disability Benefit

For a job-connected disability, the benefit is 72 percent of the member's most recent annual pay plus an annuity based on his or her own contributions, plus additional amounts for surviving children. Benefits are capped at 75 percent of annual rate of regular compensation for employees who become members after January 1, 1988.

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

Death Benefits

In general, the beneficiary of an employee who dies in active service will receive a refund of the employee's own contributions. Alternatively, if the employee were eligible to retire on the date of death, a spouse's benefit will be paid equal to the amount the employee would have received under Option C. The surviving spouse of a member who dies with two or more years of credited service has the option of a refund of the employee's contributions or a monthly benefit regardless of eligibility to retire, if they were married for at least one year. There is also a minimum widow's pension of \$250 per month, and there are additional amounts for surviving children.

If an employee's death is job-connected, the spouse will receive 72 percent of the member's most recent annual pay, in addition to a refund of the member's accumulated deductions, plus additional amounts for surviving children. However, in accordance with Section 100 of Chapter 32, the surviving spouse of a police officer, firefighter or corrections officer is killed in the line of duty will be eligible to receive an annual benefit equal to the maximum salary held by the member at the time of death.

Upon the death of a job-connected disability retiree who retired prior to November 7, 1996 and could not elect an Option C benefit, a surviving spouse will receive an allowance of \$6,000 per year if the member dies for a reason unrelated to cause of disability.

"Heart And Lung Law" And Cancer Presumption

Any case of hypertension or heart disease resulting in total or partial disability or death to a uniformed fireman, permanent member of a police department, or certain employees of a county correctional facility is presumed to have been suffered in the line of duty, unless the contrary is shown by competent evidence. Any case of disease of the lungs or respiratory tract resulting in total disability or death to a uniformed fireman is presumed to have been suffered in the line of duty, unless the contrary is shown by competent evidence. There is an additional presumption for uniformed firemen that certain types of cancer are job-related if onset occurs while actively employed or within five years of retirement.

SECTION 4: Reporting Information for the City of Salem Contributory Retirement System

Options

Members may elect to receive a full retirement allowance payable for life under Option A. Under Option B a member may elect to receive a lower monthly allowance in exchange for a guarantee that at the time of death any contributions not expended for annuity payments will be refunded to the beneficiary. Option C allows the member to take a lesser retirement allowance in exchange for providing a survivor with two-thirds of the lesser amount. Option C pensioners will have benefits converted from a reduced to a full retirement if the beneficiary predeceases the retiree.

Post-Retirement Benefits

The Board has adopted the provisions of Section 51 of Chapter 127 of the Acts of 1999, which provide that the Retirement Board may approve an annual COLA in excess of the Consumer Price Index but not to exceed a 3% COLA on the first \$12,000 of a retirement allowance. Cost-of-living increases granted prior to July 1, 1998 are reimbursed by the Commonwealth and not reflected in this report.

Changes in Plan Provisions

Members hired on or after April 2, 2012 are covered by the provisions of Chapter 32 as amended by Chapter 176 of the Acts of 2011 and Chapter 139 of the Acts of 2012.

SECTION 5: GASB 67/68 Information for the City of Salem Contributory Retirement System

EXHIBIT 1

Net Pension Liability

The components of the net pension liability of the City of Salem Contributory Retirement System at December 31, 2013 were as follows:

Total pension liability	\$237,524,910
Plan fiduciary net position	123,879,403
System's net pension liability	113,645,507
Plan fiduciary net position as a percentage of the total pension liability	52.15%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of December 31, 2013, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	4.00%
Salary increases	Varies by length of service with ultimate rates of 4.25% for Group 1, 4.50% for Group 2 and 4.75% for Group 4
Investment rate of return	7.75%, net of pension plan investment expense, including inflation
Cost of Living Adjustments	3% of first \$12,000
Pre-retirement:	RP-2000 Employee Mortality Table projected generationally with Scale AA from 2010
Healthy Retiree:	RP-2000 Healthy Annuitant Mortality Table projected generationally with Scale AA from 2010
Disabled Retiree:	RP-2000 Healthy Annuitant Mortality Table set forward 3 years for males only projected generationally with Scale AA from 2010

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2013 are summarized in the following table:

SECTION 5: GASB 67/68 Information for the City of Salem Contributory Retirement System

Asset Class	Long-Term Expected Real Rate of Return
Domestic equity	6.60%
International developed markets equity	7.10%
International emerging markets equity	9.40%
Core fixed income	2.20%
High-yield fixed income	4.70%
Real estate	4.40%
Hedge fund, GTAA, Risk parity	3.90%
Commodities	4.40%
Private equity	11.70%

Discount rate: The discount rate used to measure the total pension liability was 7.75%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that City of Salem Contributory Retirement System contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the City of Salem Contributory Retirement System, calculated using the discount rate of 7.75%, as well as what City of Salem Contributory Retirement System's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.75%) or 1-percentage-point higher (8.75%) than the current rate:

	1% Decrease (6.75%)	Current Discount (7.75%)	1% Increase (8.75%)
City of Salem Contributory Retirement System's net pension liability as of December 31, 2013	\$139,256,240	\$113,645,507	\$91,769,270

SECTION 5: GASB 67/68 Information for the City of Salem Contributory Retirement System

EXHIBIT 2

Pension Expense and Deferred Outflows/Inflows of Resources Related to Pensions

A. Pension expense for the year ended June 30, 2015

Service cost	\$5,669,287
Interest	--
Recognized portion of current-period difference between expected and actual experience	--
Contributions – employee	--
Projected earnings on pension plan investments	--
Recognized portion of current-period difference between projected and actual earnings on pension plan investments	--
Recognition of deferred outflows of resources	--
Recognition of deferred inflows of resources	--
Pension expense for fiscal year ended June 30, 2015	To be determined

B. Deferred outflows/inflows of resources related to pensions

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	--	--
Changes of assumptions	--	--
Changes of benefit terms	--	--
Net difference between projected and actual earnings on pension plan investments	--	--
Total	To be determined	To be determined

C. Projected recognition of deferred outflows/(inflows)

	Year Ended June 30,	Recognition
	2016	--
	2017	--
	2018	--
	2019	--
	2020	--
	Thereafter	--

Note: Entry Age Normal liabilities calculated using ages and service amounts as of January 1, 2014 are used to measure the pension expense for fiscal year ended June 30, 2015.

SECTION 5: GASB 67/68 Information for the City of Salem Contributory Retirement System

EXHIBIT 3

Schedule of Changes in the Net Pension Liability – Last Ten Years

	Year End December 31,									
	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Total pension liability										
Service cost	\$5,669,287									
Interest	--									
Differences between expected and actual experience	--									
Changes of assumptions	--									
Changes of benefit terms	--									
Benefit payments, including refunds of employee contributions	--									
Net change in total pension liability	TBD									
Total pension liability - beginning	237,524,910									
Total pension liability - ending (a)	TBD									
Plan fiduciary net position										
Contributions - employer	--									
Contributions - employee	--									
Net investment income	--									
Benefit payments, including refunds of employee contributions	--									
Other	--									
Net change in fiduciary net position	TBD									
Plan fiduciary net position - beginning	123,879,403									
Plan fiduciary net position - ending (b)	TBD									
Net pension liability – ending: (a)-(b)	TDB									
Plan's fiduciary net position as a percentage of the total pension liability	TBD									
Covered-employee payroll	\$40,399,678									
Net pension liability as a percentage of covered-employee payroll	TBD									

*Covered-employee payroll as reported in the January 1, 2014 funding valuation report

SECTION 5: GASB 67/68 Information for the City of Salem Contributory Retirement System

EXHIBIT 4

Schedule of Contributions – Last Ten Years

	Year End December 31,									
	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Actuarially determined contribution*	\$11,948,259									
Contributions in relation to the actuarially determined contribution	TBD									
Contribution deficiency (excess)	TBD									
Covered-employee payroll	\$40,399,678									
Contributions as a percentage of covered-employee payroll	29.58%									

* Based on the results of the January 1, 2012 actuarial valuation (including assumptions and methods) which determined budgeted appropriation for fiscal 2015.

SECTION 5: GASB Information for the City of Salem Contributory Retirement System

EXHIBIT 5

Notes to Required Supplementary Information

Valuation date	January 1, 2014
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Increasing at 4.5% per year for 2002 and 2003 ERI and remaining unfunded liability and level dollar amortization for 2010 ERI.
Remaining amortization period	As of July 1, 2014, 8 years remaining on 2010 ERI, 17 years remaining on the 2002 and 2003 ERI and the remaining unfunded liability.
Asset valuation method	The difference between the expected return on an actuarial basis and actual investment return on a market value basis is recognized over a five-year period.
Actuarial assumptions:	
Investment rate of return	7.75%
Discount rate	7.75%
Inflation rate	4.00%
Projected salary increases	Varies by length of service with ultimate rates of 4.25% for Group 1, 4.50% for Group 2 and 4.75% for Group 4
Cost of living adjustments	3.00% of first \$12,000 of retirement income
Plan membership:	
Retired participants and beneficiaries receiving benefits	571
Inactive participants entitled to a return of their employee contributions	207
Inactive participants with a vested right to a deferred or immediate benefit	26
Active participants	<u>827</u>
Total	1,631

SECTION 5: GASB Information for the City of Salem Contributory Retirement System

Changes in Assumptions:

The actuarial cost method was changed to better reflect the impact of the plan changes effective for employees hired on or after April 2, 2012.

The pre-retirement mortality assumption was changed from the RP-2000 Employee Mortality Table projected 12 years with Scale AA to the RP-2000 Employee Mortality Table projected generationally using Scale AA from 2010.

The mortality assumption for non-disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table projected 12 years with Scale AA to the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale AA from 2010.

The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward two years projected 12 years with Scale AA to the RP-2000 Healthy Annuitant Mortality Table set forward three years for males only projected generationally using Scale AA from 2010.

The assumed retirement age for inactive vested participants was changed from age 65 to age 55 for Group 1 and 2 members hired prior to April 2, 2012. For participants hired April 2, 2012 or later, the assumption is age 60 for Group 1 members, age 55 for Group 2 members, and age 50 for Group 4 members.

The investment return assumption was decreased from 8.00% to 7.75%.

The salary increase assumption was changed from a level 5% to rates based on years of service with ultimate rates of 4.25% per year for Group 1 members, 4.50% per year for Group 2 members and 4.75% per year for Group 4 members, including an allowance for inflation of 4.0% per year.

Changes in Plan Provisions:

Members hired on or after April 2, 2012 are covered by the provisions of Chapter 32 as amended by Chapter 176 of the Acts of 2011 and Chapter 139 of the Acts of 2012.
